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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/661,882

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Herve Guy Bricaud

C-CPI-0110

8514

7590

01/24/2006

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EXAMINER

HOLTON, STEVEN E

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/661,882	Applicant(s) BRICAUD ET AL.	
	Examiner Steven E. Holton	Art Unit 2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 12, 13, 18 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10 and 14-17 is/are rejected.
- 7) ☒ Claim(s) 6-9 and 11 is/are objected to.
- 8) ☒ Claim(s) 1-19 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-11 and 14-17, drawn to a trackball with pinion and deflectable member, classified in class 345, subclass 167.
 - II. Claims 12-13, drawn to a trackball with a resilient, depressable dome beneath the trackball, classified in class 345, subclass 167.
 - III. Claims 18 and 19, drawn to a trackball with resilient biasing elements to keep coding shafts in contact with the trackball, classified in class 345, subclass 167.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I, II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as a clickable trackball using a standard optical device used to determine the movement of the trackball. Invention III has separate utility such as a standard non-clickable trackball using techniques to keep coding shafts in contact with the trackball during use. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II or Group III, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group III, restriction for examination purposes as indicated is proper.

3. During a telephone conversation with Leon Rosen on 01/13/06 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-11 and 14-17. Affirmation of this election must be made by applicant in replying to this Office action. Claims 12, 13, 18 and 19 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

5. Claims 10 and 17 are objected to because of the following informalities: the claims have language stating, "a first of said control signal generators comprises (includes)". This language is not incorrect, but the claims then lack a statement of what the second of the control generators comprises. This makes the claims unclear if the signal generators use similar or different technology. The Examiner assumes that both of the signal generators use the same technology as the language of claim 1 and the specification suggests. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 11 and 14-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 and 14 include statements regarding the control device including “a second electronic device that is controlled by control signals generated by said signal generators”. It is unclear what “a second electronic device” would include and there is no “first electronic device” specifically named to require a need to discuss a second electronic device. Further, “a second electronic device” could be drawn to any electronic device from a toaster oven to an LED or any electronic device and the claim language makes the scope of the claim overly broad and unclear. It would be impossible for one skilled in the art to determine what “a second electronic device” might refer to and what devices would count as infringing or not infringing. Claims 15-17 are dependent on claim 14 and therefore inherit the indefinite limitations of claim 14 and are also rejected under 35 USC 112, second paragraph.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

7. Claims 1-5 and 10 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-8 of copending Application No. 11/076678. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim 1 of the current application:	Claim 1 of the '678 application:
A trackball control device comprising:	A control device comprising:
a housing,	A housing:
two coding shafts pivotally mounted on said housing about perpendicular axes,	A pair of coding shafts rotatably mounted on the housing about perpendicular horizontal axes, each coding shaft having a roller engagement with the ball...

a trackball rotatably mounted in the housing and engaged with said shafts to pivot them, and two control signal generators,	A ball lying primarily in the housing and having an exposed ball top, said ball being pivotal about horizontal axes
wherein each of said control signal generators comprises: a pair of pinions, each having multiple teeth and each coupled to one of said coding shafts to rotate as the corresponding coding shafts rotates;	A pair of coding shafts... each coding shaft having... a pinion with a plurality of teeth;
a pair of deflectable members that each has a first member part lying between a pair of teeth of a corresponding one of said pinions and biased toward a position between the pair of teeth, so the first member part is repeatedly deflected in first and second opposite directions, and released after each deflection, as the corresponding pinion turns in first and second opposite directions, respectively;	A pair of electrically conducting springs each having a main part mounted on said housing and having a contact rod with a contacting part and with a pinion-engaging part... so the pinion-engaging part is deflected to a deflected position every time the pinion turns far enough... and so the pinion-engaging part moves to a release position when the pinion-engaging part first loses engagement with the tooth...

mean for generating electrical signals in response to deflection of each of said deflectable members.	Two pairs of electrical terminals, each pair including a first terminal that is in continuous electrical connection to said spring and a second terminal positioned in the path of the contacting part of one of said contact rods to engage said contacting part of said contact rod in only one of its positions.
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The Examiner notes that claim 10 is a similar claim to that of claim 1, but includes the three electrical terminals. These terminals as mentioned in claims 1, 7 and 8 of the '678 application. Further, claims 2-5 which are drawn to the spring and rod configuration of the current application are discussed in claims 2-6 of the '678 application. The Examiner notes that a torsion spring is the same as a spring with a helical coil discussed in claims 3 and 4 of the '678 application.

Allowable Subject Matter

8. Claim 17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: The independent claims 1 and 10 and dependent claim 17 are drawn towards a trackball input device with a specific signal generator arrangement. The arrangement

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including a pinion with multiple teeth coupled to a coding shaft to rotate as the corresponding coding shaft rotates; a deflectable member that has a first part lying between a pair of teeth, so the first member part is repeatedly deflected in first and second opposite directions, and released after each deflection, as the corresponding pinion turns in first and second opposite directions; means for generating electrical signals in response to the deflection of each of the deflectable members. The closest prior art, Yokoji et al. (USPN: 6909422) and Applicant's Cited Prior Art (EP 1073004A3), hereinafter ACPA, teach a pinion with multiple teeth that allows rotation in only a single direction (Yokoji et al.) or a pinion with multiple teeth that move the deflectable member in a single direction irregardless of the direction the shaft rotates (ACPA).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hasuda (USPN: 6433773) shows a device using a flat cable across a bottom level of a housing and exiting the device using a slit. It would be a matter of design choice for one skilled in the art to modify the teachings of Hasuda to shift the location of a cable up or down within a housing to provide easier connection points for manufacture and production of the device. Tseng (USPN: 977953) teaches a mouse input using an encoding wheel with conducting areas that cause signal connections between conducting members to produce signals related to the motion of the input device.

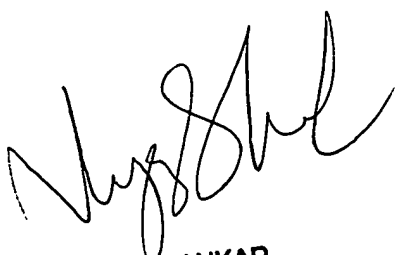
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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven E. Holton whose telephone number is (571) 272-7903. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven E. Holton
January 18, 2006
Art Unit 2673



VIJAY SHANKAR
PRIMARY EXAMINER